

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Re:

Appl. No.

10/736,187

Confirmation No. 4371

Applicant

Glen Roger CARON

For

CONVEYOR FOR PRINTED SHEET MATERIAL

WITH AIR ASSISTED DROP

Filed

12/15/2003

Art Unit

3653

Examiner

Matthew J. Kohner

Docket No.

6001.1298

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Mail Stop: PETITION Commissioner for Patents P.O. Box 1450

April 23, 2009

Alexandria, VA 22313-1450

APPELLANTS' BRIEF UNDER 37 C.F.R. § 41.37

Sir:

Appellants submit this brief for the consideration of the Board of Patent Appeals and Interferences (the "Board") in support of their appeal of the Final Rejection dated January 31, 2007 in this application. The statutory fee of \$540.00 for filing an appeal brief is paid concurrently herewith. A Petition for Revival of an Application for Patent Abandoned Unintentionally under 37 CFR 1.137(b) and the accompanying fee of \$1,620.00 are also submitted herewith.

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REAL PARTY IN INTEREST

The real party in interest is Goss International Americas, Inc., a corporation having a place of business in Dover, New Hampshire, and the assignee of the entire right, title and interest in the above-identified patent application. The invention was assigned to Goss International Americas, Inc. by an assignment originating from inventors Glen Roger Caron, Glenn Alan Guaraldi and Richard Craig Meyer.

I. RELATED APPEALS AND INTERFERENCES

Appellants, their legal representatives, and assignee are not aware of any appeal, interference or judicial proceeding that directly affects, will be directly affected by, or will have a bearing on the Board's decision in this appeal.

II. STATUS OF CLAIMS

Claims 1 to 11 and claims 13 to 17 are pending. Claim 12 has been canceled. Claim 17 has been allowed. Claim 7 is objected to as being dependent upon a rejected base claim, but was indicated as being allowable if rewritten in independent form. Claims 1 to 6, 8 to 11 and 13 to 16 have been finally rejected as per the Final Office Action dated January 31, 2007.

The rejections to claims 1 to 6, 8 to 11 and 13 to 16 thus are appealed. A copy of claims 1 to 11 and 13 to 16 is attached hereto as Appendix A.

III. STATUS OF AMENDMENTS AFTER FINAL

No amendments to the claims were filed after the final rejection. A Notice of Appeal was filed on May 31, 2007 and received by the United States Patent & Trademark Office on June 4, 2007.

IV. SUMMARY OF THE CLAIMED SUBJECT MATTER

Independent claim 1 recites a sheet material conveyor comprising a pocket conveyor with at least one moving pocket (see, e.g., ref. no. 10 in Figure 1, specification at page 4, paragraph [0022], line 8) for collecting printed sheet material (see, e.g., ref. no. 50 in Figure 1, specification at page 4, paragraph [0022], lines 9 and 10), the pocket conveyor having a release area (see, e.g.,

Fig. 3, specification at page 5, paragraph [0026], lines 3 and 4) for releasing the printing sheet material in the pocket; and an air supply device (see, e.g., ref. no. 60 in Figure 3, specification at page 5, paragraph [0026], lines 6 and 7) providing air to the pocket at the release area, the air supply device including an air source (see, e.g., ref. no. 66 in Figure 3, specification at page 5, paragraph [0026], line 6), the pocket being movable with respect to the air source (see, e.g., specification at page 5, paragraph [0026], lines 9 to 12).

Independent claim 13 recites a method for transferring printed sheet material from a pocket conveyor having a plurality of moving pockets (see, e.g., ref. no. 10 in Fig. 3, specification at page 5, paragraph [0026], lines 4 and 5), the method comprising the steps of providing pressurized air to the printed sheet material as the pockets move past a pressurized air source (see, e.g., Figure 3, specification at page 5, paragraph [0026], lines 9 to 11); and releasing the printed sheet material from the pockets while the pressurized air is being provided (see, e.g., Figure 2, specification at page 4, paragraph [0025], lines 24 to 26, specification at page 3, paragraph [0013], lines 8 to 11).

Dependent claim 2 recites the sheet material conveyor as recited in claim 1 wherein the pocket (see, e.g., ref. no. 10 in Fig. 1, specification at page 4, paragraph [0022], lines 8 and 9) has a pocket foot (see, e.g., ref. no. 14 in Fig. 1, specification at page 4, paragraph [0022], line 9) released at the release area (see, e.g., Fig. 3, specification at page 5, paragraph [0026], lines 3 and 4) to drop the printed sheet material (see, e.g., Fig. 2, specification at page 4, paragraph [0025], lines 24 and 25).

Dependent claim 4 recites the sheet material conveyor as recited in claim 1 wherein the air supply device (see, e.g., ref. no. 60 in Figure 3, specification at page 5, paragraph [0026], lines 6 and 7) includes an air manifold (see, e.g., ref. no. 16 in Figure 1, specification at page 4, paragraph [0022], lines 12 to 14) on each pocket connected to the air holes (see, e.g., ref. no. 30 in Figure 5, specification at page 4, paragraph [0023], lines 16 and 19; specification at page 4, paragraph [0022], lines 12 and 14).

Dependent claim 6 recites the sheet material conveyor as recited in claim 5 wherein the air source (see, e.g., ref. no. 66 in Figure 3, specification at page 5, paragraph [0026], line 6) is stationary and is located at the release area (see, Figure 3, specification at page 5, paragraph [0026]).

V. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Whether claims 1 to 6 and claims 8 to 16 should be rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,186,443 to Manley et al. ("Manley") in view of Great Britain Patent No. 2 032 889 to Brooke et al. ("Brooke").

VI. ARGUMENTS

35 U.S.C. §103(a) Rejections

A. Claims 1 to 6 and 8 to 12

Claims 1 to 6 and 8 to 12 were rejected under 35 U.S.C. §103(a) as being unpatentable over Manley in view of Brooke.

Manley discloses a collating conveyor 54 having a plurality of bottom opening pockets 56. (Manley, Figs. 3 and 4, col. 3, lines 10 to 17). As each of pockets 56 goes through a delivery station 94, a cam control mechanism effects movement between opposite sides of each pocket 56 to open the lower end of each pocket 56. (Id., Figs. 3 and 4, col. 3, lines 50 to 53). As a pocket 56 opens, a newspaper 28 is delivered by being dropped from the pocket 56 downwardly to the gripper conveyor assembly 32. (Id., Figs. 7 to 10; col. 3, lines 53 to 56).

Brooke discloses an automatic xerographic reproducing machine 10 that includes a sheet stacker 100. (Brooke, Fig. 1, page 2, lines 75 to 78). Sheets are stacked in a tray 101 of stacker 100 against downwardly inclined support surface 102 and sheets are registered by registration fences 104, 105. (Id., Fig. 1, page 3, lines 11 to 22). "In order to reduce the effects of friction and electrostatic drag between the stack and the support surface 102 during set ejection, the latter is perforated with an array of apertures 121 through which, during set ejection, air is blown from plenum 122 supplied with air under pressure through line 123." (Id., Fig. 1, page 3, lines 105 to 110).

Claim 1 recites "[a] sheet material conveyor comprising:

a pocket conveyor with at least one moving pocket for collecting printed sheet material, the pocket conveyor having a release area for releasing the printing sheet material in the pocket; and

an air supply device providing air to the pocket at the release area, the air supply device including an air source, the pocket being movable with respect to the air source."

It is respectfully submitted that neither Manley nor Brooke discloses or teaches "an air supply device providing air to the pocket at the release area, the air supply device including an air

source, the pocket being movable with respect to the air source" and that it would not have been obvious to one of skill in the art to have modified Manley in view of Brooke to have included such an arrangement. As discussed above, Manley discloses a collating conveyor 54 having a plurality of bottom opening pockets 56; however, as the Examiner has admitted, Manley fails to disclose an air supply device providing air to any of pockets 56. Brooke, which is cited by the Examiner as curing the deficiency of Manley with respect to claim 1, discloses an automatic xerographic reproducing machine 10 that includes a stationary stacking tray 101, which has a support surface 102 including apertures 121 and a plenum 122 attached to support surface 102. Air is supplied to plenum 122 and through apertures 121 under pressure from a line 123. Tray 101 is connected to line 123 and is not movable with respect to any air source. Thus, neither of the cited references disclose the specific requirement of claim 1 of "the pocket being movable with respect to the air source."

Furthermore, it is respectfully submitted that one of skill in the art would not have had any reason to have modified Manley in view of Brooke to include the arrangement required by claim 1 because Brooke shows support surface 102, plenum 122 and supply line 123 being stationary and integrally connected to one another. Nothing in either reference provides any motivation for one of skill in the art to supply air to the moving pockets of Manley. Also, the mere fact that Brooke shows a stationary air source and Manley shows movable pockets is insufficient to make obvious the requirement of claim 1 of "the pocket being movable with respect to the air source" because neither reference in any way provides any reason or motivation to make movable pockets 56 movable with respect to an air source. It is respectfully submitted that the Examiner's arguments at page 3 of the January 31, 2007 Office Action with respect to the obviousness of claim 1 are based on impermissible hindsight and do not provide sufficient reasoning as to why it would have been obvious for one of ordinary skill in the art to have combined Manley and Brooke at the time of the present invention to meet the limitations of claim 1. (MPEP 2145, X).

Additionally, the Examiner's statement that "there is [a] long known problem of friction between the paper and pocket wall adversely affecting the gravity drop" provides further support that claim 1 is not obvious. (January 31, 2007 Office Action, page 3). The Examiner properly

states that there has been a long felt need for solving this friction problem in moving pockets, (see MPEP 716.04), and has not demonstrated any solution, other than the one disclosed and claimed in the instant application. Brooke's disclosure of stationary sheet stackers has been known since at least 1980 without a solution to problem of friction on moving pockets. Thus, it is respectfully submitted that any prima facie case of non-obviousness of claim 1 (which it is respectfully submitted has not been established) is clearly rebutted.

Reversal of the rejection under 35 U.S.C. 103(a) of claim 1, and claims 2 to 6 and 8 to 12 depending therefrom, is respectfully requested.

B. Independent Claim 13: Argued Separately

Claims 13 to 15 were rejected under 35 U.S.C. §103(a) as being unpatentable over Manley in view of Brooke.

Manley and Brooke are described above.

Claim 13 recites "[a] method for transferring printed sheet material from a pocket conveyor having a plurality of moving pockets, the method comprising the steps of:

providing pressurized air to the printed sheet material as the pockets move past a pressurized air source; and

releasing the printed sheet material from the pockets while the pressurized air is being provided."

First, it is respectfully submitted that the Examiner is in clear error for failing to specifically address the specific language of claim 13. The Examiner asserts, at pages 2 and 3 of the January 31, 2007 Office Action, that "[i]t would have been obvious to one of skill in the art at the time the invention was made to modify Manley's pockets to include an air supply device providing air to the pocket, as taught by Brooke, for the purpose of preventing friction between the stack and the support surface during ejection of the stack of papers." However, the Examiner never once addressees the specific language of "providing pressurized air to the printed sheet material as the pockets move past a pressurized air source" of claim 13. This is one reason why the Examiner has not established a prima facie case for the obviousness of claim 13.

It is also respectfully submitted that neither Manley nor Brooke discloses or teaches "providing pressurized air to the printed sheet material as the pockets move past a pressurized air source" and it would not have been obvious to one of skill in the art to have modified the process in Manley in view of Brooke to have included this step. As discussed above, Manley discloses moving pockets 56 about a collating conveyor 54; however, Manley fails to disclose an providing pressured air to any of pockets 56. Brooke, which is cited by the Examiner as curing the deficiency of Manley with respect claim 13, discloses providing air to a stack of sheets on a stationary support surface 102 from a plenum 122 and line 123 attached to the support surface. Thus, neither reference discloses the "providing" step of claim 13. This is another reason why the Examiner has not established a prima facie case for the obviousness of claim 13.

Furthermore, it is respectfully submitted that one of skill in the art would not have had any reason to have modified Manley in view of Brooke to include the "providing" step of claim 13 because Brooke shows support surface 102, plenum 122 and supply line 123 being stationary and integrally connected to one another. Nothing in either reference even provides any motivation for one of skill in the art to have provided air to moving the pockets of Manley in view of Brooke, let alone in the manner required by claim 13. Also, the mere fact that Brooke shows a stationary air source and Manley shows movable pockets is insufficient to make obvious the requirement of claim 13 of "providing pressurized air to the printed sheet material as the pockets move past a pressurized air source" because neither reference in way provides a reason or motivation to include a pressurized air source in Manley that provides pressurized air to movable pockets 56 as pockets 56 move by the pressurized air source. It is respectfully submitted that the Examiner's arguments at page 3 of the January 31, 2007 Office Action with respect to the obviousness of claim 13 are based on impermissible hindsight and do not provide sufficient reasoning as to why it would have been obvious for one of ordinary skill in the art to have combined Manley and Brooke at the time of the present invention to meet the limitations of claim 13. (MPEP 2145, X).

Additionally, the Examiner's statement that "there is [a] long known problem of friction between the paper and pocket wall adversely affecting the gravity drop" provides further support that claim 13 is not obvious. (January 31, 2007 Office Action, page 3). The Examiner properly

states that there has been a long felt need for solving this friction problem in moving pockets, (sSee MPEP 716.04), and has not demonstrated any solution, other than the one disclosed and claimed in the instant application. Brooke's disclosure on stationary sheet stackers has been known since at least 1980 without a solution to the long felt problem of friction on moving pockets. Thus, it is respectfully submitted that any prima facie case of non-obviousness of claim 13 (which it is respectfully submitted has not been established) is clearly rebutted.

Reversal of the rejection under 35 U.S.C. 103(a) of claim 13, and claims 14 and 15 depending therefrom, is respectfully requested.

C. Independent Claim 16: Argued Seperately

Claim 16 was rejected under 35 U.S.C. §103(a) as being unpatentable over Manley in view of Brooke.

Manley and Brooke are described above.

Claim 16 recites "[a] printed sheet material collection device comprising: a pocket conveyor with a plurality of moving pockets; and a pressurized air source; the plurality of pockets movable with respect to the pressurized air source."

It is respectfully submitted that neither Manley nor Brooke discloses or teaches the specific limitation that "the plurality of pockets [are] movable with respect to the pressurized air source" and it would not have been obvious to one of skill in the art to have modified Manley in view of Brooke to have included such an arrangement. As discussed above, Manley discloses a collating conveyor 54 having a plurality of bottom opening pockets 56; however, the Examiner admits that Manley fails to disclose a pressurized air source. Brooke, which is cited by the Examiner as curing the deficiency of Manley with respect claim 16, discloses an automatic xerographic reproducing machine 10 that includes a stationary stacking tray 101, which has a support surface 102 including apertures 121 and a plenum 122 attached to support surface 102. Air is supplied to plenum 122 and through apertures 121 under pressure from a line 123. Tray 101 is connected to line 123 and tray 101 is not movable with respect to any air source. Thus, neither reference discloses the requirement of claim 16 of "the plurality of pockets movable with

respect to the pressurized air source." This is one reason why the Examiner has not established a prima facie case for the obviousness of claim 16.

Furthermore, it is respectfully submitted that one of skill in the art would not have had any reason to have modified Manley in view of Brooke to include the arrangement required by claim 16 because Brooke shows support surface 102, plenum 122 and supply line 123 being stationary and being integrally connected to one another. Nothing in either reference even provides any reason for one of skill in the art to have added air to moving the pockets of Manley in view of Brooke, let alone in the arrangement required by claim 16. Also, the mere fact that Brooke shows a stationary air source and Manley shows movable pockets is insufficient to make obvious the requirement of claim 16 of "the plurality of pockets movable with respect to the pressurized air source" because neither reference in way provides a reason to make movable pockets 56 movable with respect to a pressured air source. It is respectfully submitted that the Examiner's arguments at page 3 of the January 31, 2007 Office Action with respect to the obviousness of claim 16 are based on impermissible hindsight and do not provide sufficient reasoning as to why it would have been obvious for one of ordinary skill in the art to have combined Manley and Brooke at the time of the present invention to meet the limitations of claim 16. (MPEP 2145, X). This is one reason why the Examiner has not established a prima facie case for the obviousness of claim 16.

Additionally, the Examiner's statement that "there is [a] long known problem of friction between the paper and pocket wall adversely affecting the gravity drop" provides further support that claim 16 is not obvious. (January 31, 2007 Office Action, page 3). The Examiner properly states that there has been a long felt need for solving this friction problem in moving pockets, (sSee MPEP 716.04), and has not demonstrated any solution, other than the one disclosed and claimed in the instant application. Brooke's disclosure on stationary sheet stackers has been known since at least 1980 without a solution to the long felt problem of friction on moving pockets. Thus, it is respectfully submitted that any prima facie case of non-obviousness of claim 16 (which it is respectfully submitted has not been established) is clearly rebutted.

Reversal of the rejection under 35 U.S.C. 103(a) of claim 16 is respectfully requested.

D. Dependent Claim 2: Argued Separately

Claim 2 recites "[t]he sheet material conveyor as recited in claim 1 wherein the pocket has a pocket foot released at the release area to drop the printed sheet material."

It is respectfully submitted that portion of pocket 56 of Manley that the Examiner alleges corresponds to the "pocket foot" of claim 2 is in no way released to release newspapers. It is respectfully submitted that pocket 56 is opened by moving the portion of pocket 56 that the Examiner alleges corresponds to the claimed "collect wall." This is an additional reason why the combination of Manley and Brooke does not render claim 2 unpatentable as obvious.

For this reason also, reversal of the rejection under 35 U.S.C. 103(a) of claim 2 is respectfully requested.

E. Dependent Claim 4: Argued Separately

Claim 4 recites "[t]he sheet material conveyor as recited in claim 1 wherein the air supply device includes an air manifold on each pocket connected to the air holes."

It is respectfully submitted that neither Manley nor Brooke discloses or teaches the requirements of claim 4 and it would not have been obvious to one of skill in the art to have modified Manley in view of Brooke to have included such an arrangement. Claim 4 as a whole requires a manifold that is movable with respect to an air source. Because Brooke shows that plenum 122 is stationary and connected to line 123, this limitation is clearly not taught by either publication or any obvious combination thereof. This is an additional reason why the combination of Manley and Brooke does not render claim 4 unpatentable as obvious.

For this reason also, reversal of the rejection under 35 U.S.C. 103(a) of claim 4 is respectfully requested.

D. Dependent Claim 6: Argued Separately

Claim 6 recites "[t]he sheet material conveyor as recited in claim 5 wherein the air source is stationary and is located at the release area."

It is respectfully submitted that neither Manley nor Brooke discloses or teaches the requirements of claim 6 and it would not have been obvious to one of skill in the art to have

modified Manley in view of Brooke to have included such an arrangement. The mere fact that Brooke shows a stationary air source and Manley shows movable pockets is insufficient to make obvious the requirement of claim 6 of an stationary air source because neither reference in way provides a reason to make movable pockets 56 movable with respect to a stationary air source. This is an additional reason why the combination of Manley and Brooke does not render claim 6 unpatentable as obvious.

For this reason also, reversal of the rejection under 35 U.S.C. 103(a) of claim 6 is respectfully requested.

CONCLUSION

It is respectfully submitted that the application is in condition for allowance. Favorable consideration of this appeal brief is respectfully requested.

Respectfully submitted,

DAVIDSON, DAVIDSON & KAPPEL, LLC

DATED: April 23, 2009

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APPENDIX A:

PENDING CLAIMS 1 to 11 and 13 to 16 of U.S. APPLICATION SERIAL NO. 10/736,187

Claim 1 (previously presented): A sheet material conveyor comprising:

a pocket conveyor with at least one moving pocket for collecting printed sheet material, the pocket conveyor having a release area for releasing the printing sheet material in the pocket; and

an air supply device providing air to the pocket at the release area, the air supply device including an air source, the pocket being movable with respect to the air source.

Claim 2 (original): The sheet material conveyor as recited in claim 1 wherein the pocket has a pocket foot released at the release area to drop the printed sheet material.

Claim 3 (original): The sheet material conveyor as recited in claim 1 wherein the pocket includes an angled collect wall having air holes for the air.

Claim 4 (original): The sheet material conveyor as recited in claim 1 wherein the air supply device includes an air manifold on each pocket connected to the air holes.

Claim 5 (previously presented): The sheet material conveyor as recited in claim 4 wherein the air source transfers air to the air manifold.

Claim 6 (previously presented): The sheet material conveyor as recited in claim 5 wherein the air source is stationary and is located at the release area.

Claim 7 (previously presented): The sheet material conveyor as recited in claim 5 wherein the air source is a pressurized air source, a belt having holes interacting with the air manifold on the pocket, and a drive driven by the pocket.

Claim 8 (original): The sheet material conveyor as recited in claim 1 wherein the air supply device is adjustable to vary pressure of the air supplied to the pocket.

Claim 9 (original): The sheet material conveyor as recited in claim 1 wherein the at least one pocket includes a plurality of pockets.

Claim 10 (original): The sheet material conveyor as recited in claim 1 further including a further conveying unit located below the pocket at the release area.

Claim 11 (original): The sheet material conveyor as recited in claim 10 wherein the further conveying unit is a gripper conveying unit.

Claim 13 (previously presented): A method for transferring printed sheet material from a pocket conveyor having a plurality of moving pockets, the method comprising the steps of:

providing pressurized air to the printed sheet material as the pockets move past a pressurized air source; and

releasing the printed sheet material from the pockets while the pressurized air is being provided.

Claim 14 (original): The method as recited in claim 13 further comprising collating printed sheet material having different coefficients of friction in the pocket conveyor.

Claim 15 (original): The method as recited in claim 13 further comprising gripping the printed sheet material after the releasing step.

Claim 16 (previously presented): A printed sheet material collection device comprising:

a pocket conveyor with a plurality of moving pockets; and

a pressurized air source;

the plurality of pockets movable with respect to the pressurized air source.

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APPENDIX B

vidence Appendix under 37 C.F.R. §41.37 (c) (ix):

No evidence pursuant to 37 C.F.R. §§1.130, 1.131 or 1.132 and relied upon in the appeal has been submitted by appellants or entered by the examiner.

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APPENDIX C

Related proceedings appendix under 37 C.F.R. §41.37 (c) (x):

As stated in "2. RELATED APPEALS AND INTERFERENCES" of this appeal brief, appellants, their legal representatives, and assignee are not aware of any appeal or interference that directly affects, will be directly affected by, or will have a bearing on the Board's decision in this appeal.